



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,638	03/31/2006	Italo Carfagnini	58009-021400	1734

33717 7590 02/17/2010
GREENBERG TRAURIG LLP (LA)
2450 COLORADO AVENUE, SUITE 400E
INTELLECTUAL PROPERTY DEPARTMENT
SANTA MONICA, CA 90404

EXAMINER

KRYLOVA, IRINA

ART UNIT	PAPER NUMBER
----------	--------------

1796

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/17/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

laipmail@gtlaw.com
allenr@gtlaw.com
santosv@gtlaw.com

Office Action Summary	Application No. 10/574,638	Applicant(s) CARFAGNINI, ITALO	
	Examiner Irina Krylova	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 6-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 6-19 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6-14, 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 7, 2010 has been entered.

Response to Amendment

2. The amendment filed by Applicant on January 7, 2010 has been fully considered. The amendment of claims 2-3, 7, 15,17 and addition of new claim 19 are acknowledged. Specifically, independent claim 15 has been amended to include a limitation of adding filler until the composition reaches a total specific gravity of 2 kg/dm³ and a hardness ranging from ShA 40 to ShD 50. In light of the amendment filed by Applicant on January 7, 2010, the previous rejections of claims 2-7 and 15-17 under 35 USC 112 are withdrawn.

Claim Objections

3. Claims 2-4, 6-14 and 16-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the

Art Unit: 1796

claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 2-4, 6-7 and 16 are "method" claims which are dependent on claim 19, wherein the newly added claim 19 recites an EPDM terpolymer and polyolefin based plasto-elastomeric composition and not a method. Claim 17, and claims 8-14 and 18 which are dependent on claim 17, recite a plasto-elastomeric composition obtained by a method according to claim 19. As cited above, claim 19 recites an EPDM terpolymer and polyolefin based plasto-elastomeric composition and not a method.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4, 6-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957), and **Yamanaka** (US 2003/0013820).

5. Carfagnini discloses a process for producing a plastomer-elastomer compositions from polyolefins and EPDM, and plastomer-elastomer compositions obtained with such process (as to newly added claims 15, 19, cited in Title).

Art Unit: 1796

6. The process for producing a plastomer-elastomer compositions comprises:

1) mastification of the EPDM elastomer and fusion of the polyolefin plastomer;

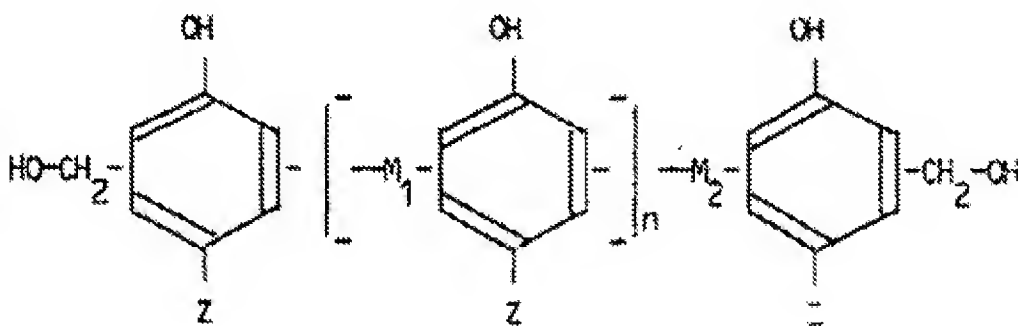
2) thorough dispersion of the components;

3) cross-linking of the elastomeric component;

4) even dispersion of any other additives (p. 3, lines 54-58),

wherein the elastomer is partially or fully cross-linked (Abstract), and the cross-linking agent consist of

a) 0.5-15 pbw per 100 pbw of EPDM of non-halogenated phenolic resin having the following structure:



And M1 and M2 are radicals -CH2- or -CH2-CO-CH2- ,

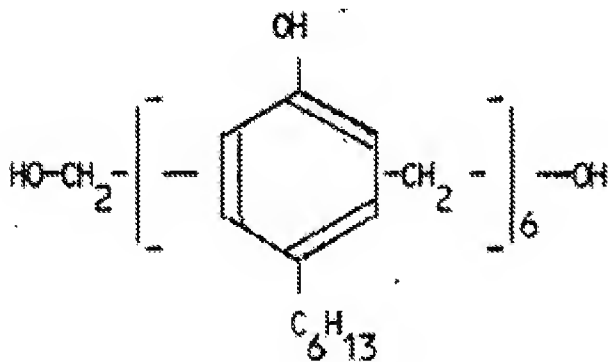
Z is an alkylenic, arylic or alkylic radical 4-16 carbon atoms;

N is integer of 0-6 (p. 3, lines 1-15); and

b) salicylic acid, admixed at a rate of 0.1-0.8 parts per 1 part of resin, by weight (p. 3, lines 45-46).

The additives added in step 4) comprise carbonate and inorganic pigments (p. 4, lines 18-25).

7. As to instant claim 16, the phenolic resin is a phenol-formaldehyde resol resin having the following formula;



8. As to instant claim 2, the polyolefin copolymers comprise ethylene, propylene, 1-butene, 1-pentene, monomers (p. 4, lines 35-41).

9. As to instant claims 4, 6, the EPDM terpolymers comprise copolymers of ethylene, propylene and diene comprising ethylidene-norbornene, 1,4-hexadiene, dicyclopentadiene (p. 4, lines 26-31).

10. **Carfagnini** fails to specify the amount of added filler and adding the filler until the composition shows a total specific gravity of 2 kg/dm³ and hardness of Shore A 40 to Shore D 50; the filler being calcium carbonate, aluminum hydroxide, magnesium hydroxide, barium sulfate.

11. **Credali et al** discloses a composition comprises:

Art Unit: 1796

- 1) 8-25% by weight of propylene polymer or copolymer;
- 2) 75-92% by weight of elastomeric fraction comprising copolymer of ethylene, propylene and conjugated or non-conjugated diene;
- 3) 40-80% by weight of inorganic filler (as to amended claims 14, 18, cited in Abstract; page 6, lines 8-12).

12. As to claims 7-9, 11-12, the used inorganic fillers comprise magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate (page 10, lines 7-13; page 11, lines 3-4), wherein the filler can be used in the form of coated particles (p.10, lines 33-34).

13. The composition comprises self-extinguishing properties, while retaining the physical and mechanical properties, and having Shore A hardness of lower than 85 (p. 11, lines 11-16).

14. Yamanaka discloses a composite material comprising: ethylene-propylene-diene (EPDM) rubber, polyolefin; and an inorganic filler (abstract). The inorganic filler comprises barium sulfate ([0022]). The filler is added in ratio of 200-500 parts by weight relative to 100 parts by weight of rubber ([0011]). The composite comprises specific gravity of 1.6-1.8 g/cc (Table 3).

15. Since

Art Unit: 1796

1) **Carfagnini** discloses a plasto-elastomeric composition and a process for producing a plastomer-elastomer compositions comprising mastification of the EPDM elastomer and fusion of the polyolefin plastomer; thorough dispersion of the components; cross-linking of the elastomeric component with a blend of non-halogenated phenolic resin and salicylic acid; followed by even dispersion of any other additives (p. 3, lines 54-58), but fails to specify the additives being magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate, which comprise 90% or less of the composition, and addition of the filler to the composition until the final specific gravity is 2 kg/dm³;

2) **Credali et al** discloses a composition comprising:

- a) 8-25% by weight of propylene polymer or copolymer;
- b) 75-92% by weight of elastomeric fraction comprising copolymer of ethylene, propylene and conjugated or non-conjugated diene;
- c) 40-80% by weight of inorganic filler comprising magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate, wherein the composition comprises a Shore A hardness of lower than 85 (p. 11, lines line 17-18), good flame-retardancy and good elastic properties (see p.11, lines 21-26),

3) **Yamanaka** discloses a composite material comprising: ethylene-propylene-diene (EPDM) rubber, polyolefin; and an inorganic filler, wherein the filler is added in ratio of 200-500 parts by weight relative to 100 parts by weight of rubber ([0011]) so that composite comprises specific gravity of 1.6-1.8 g/cc;

therefore,

Art Unit: 1796

it would have been obvious to a one of ordinary skill in the art at the time of the invention was made to add magnesium hydroxide, aluminum hydroxide, calcium carbonate, or barium sulfate fillers to the composition of **Carfagnini**, so that the composition of **Carfagnini**, containing 40-80% of a filler, would comprise both good flame-retardancy and elasticity properties, similar to **Credali et al**, and the specific gravity of 1.6-1.8 g/cc as in the composition of **Yamanaka**.

16. In addition, since

1) the process of **Carfagnini** in view of **Credali et al** and **Yamanaka** is identical to the process claimed in the instant invention; the ranges of the added components in the process of **Carfagnini** in view of **Credali et al** and **Yamanaka** are overlapping with the ranges of the components added in the process claimed in the instant invention; and

2) the specific flame-retardancy, hardness and elasticity of the composition depend on the specific amount of added filler and, and thus on the specific gravity of the composition, such limitation as the specific content of added filler becomes a result effective variable, therefore, it would have been obvious to a one skilled in the art at the time of the invention was made, to make variations in the amount of the added filler and, thus in the level of the specific gravity of the final composition, to reach the desired combination of flame-retardancy, hardness and elasticity. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (MPEP 2144.05 II).

Art Unit: 1796

17. Claims 8, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957), **Yamanaka** (US 2003/0013820) in further view of "Hawley's Condensed Chemical Dictionary", 14th Edition, 2002, by John Wiley & Sons Inc.

18. The discussion with respect to **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957), **Yamanaka** (US 2003/0013820) set forth in paragraphs 4-16 above is incorporated here by reference.

19. Carfagnini in view of **Credali** and **Yamanaka** fail to specify the use of calcium carbonate having specific gravity 2.71 g/cc, aluminum hydroxide having specific gravity 2.42 g/cc, barium sulfate having specific gravity 4.48 g/cc.

20. Calcium carbonate with specific gravity 2.71 g/cc, aluminum hydroxide with specific gravity 2.42 g/cc, barium sulfate with specific gravity 4.48 g/cc are commercially available (see "Hawley's Condensed Chemical Dictionary", 14th Edition, 2002, by John Wiley & Sons Inc.).

21. Therefore, it would have been obvious to a one of ordinary skill in the art at the time of the invention was made to use commercially available calcium carbonate with specific gravity 2.71 g/cc, aluminum hydroxide with specific gravity 2.42 g/cc, barium sulfate with specific gravity 4.48 g/cc in the composition and process of **Carfagnini** in

Art Unit: 1796

view of **Credali** and **Yamanaka** as it would have been obvious to substitute one equivalent for another used for the same purposes. Case law holds that the selection of a known material based on its suitability for its intended use supports prima facie obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.*, 325 US 327, 65 USPQ 297 (1045). Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

22. Claims 2-4, 6-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957) and **Sullivan et al** (US 2004/0209707).

23. Carfagnini discloses a process for producing a plastomer-elastomer compositions from polyolefins and EPDM, and plastomer-elastomer compositions obtained with such process (as to newly added claims 15, 19, cited in Title).

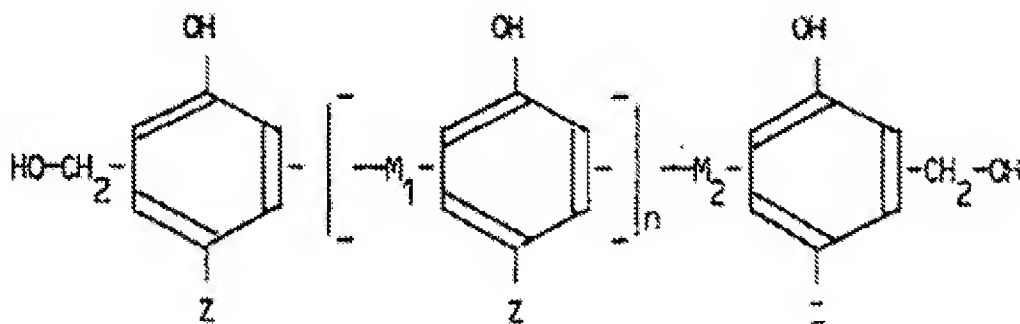
24. The process for producing a plastomer-elastomer compositions comprises:

- 1) mastification of the EPDM elastomer and fusion of the polyolefin plastomer;
- 2) thorough dispersion of the components;
- 3) cross-linking of the elastomeric component;
- 4) even dispersion of any other additives (p. 3, lines 54-58),

Art Unit: 1796

wherein the elastomer is partially or fully cross-linked (Abstract), and the cross-linking agent consist of

a) 0.5-15 pbw per 100 pbw of EPDM of non-halogenated phenolic resin having the following structure:



And M1 and M2 are radicals -CH2- or -CH2-CO-CH2- ,

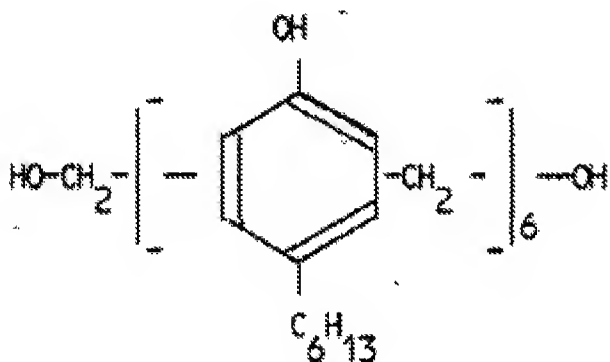
Z is an alkylenic, aryllic or alkyllic radical 4-16 carbon atoms;

N is integer of 0-6 (p. 3, lines 1-15); and

b) salicylic acid, admixed at a rate of 0.1-0.8 parts per 1 part of resin, by weight (p. 3, lines 45-46).

The additives added in step 4) comprise carbonate and inorganic pigments (p. 4, lines 18-25).

25. As to instant claim 16, the phenolic resin is a phenol-formaldehyde resol resin having the following formula;



26. As to instant claim 2, the polyolefin copolymers comprise ethylene, propylene, 1-butene, 1-pentene, monomers (p. 4, lines 35-41).

27. As to instant claims 4, 6, the EPDM terpolymers comprise copolymers of ethylene, propylene and diene comprising ethylidene-norbornene, 1,4-hexadiene, dicyclopentadiene (p. 4, lines 26-31).

28. **Carfagnini** fails to specify the amount of added filler and adding the filler until the composition shows a total specific gravity of 2 kg/dm³ and hardness of Shore A 40 to Shore D 50; the filler being calcium carbonate, aluminum hydroxide, magnesium hydroxide, barium sulfate.

29. **Credali et al** discloses a composition comprises:

- 1) 8-25% by weight of propylene polymer or copolymer;
- 2) 75-92% by weight of elastomeric fraction comprising copolymer of ethylene, propylene and conjugated or non-conjugated diene;

Art Unit: 1796

3) 40-80% by weight of inorganic filler (as to amended claims 14, 18, cited in Abstract; page 6, lines 8-12).

30. As to claims 7-9, 11-12, the used inorganic fillers comprise magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate (page 10, lines 7-13; page 11, lines 3-4), wherein the filler can be used in the form of coated particles (p.10, lines 33-34).

31. The composition comprises self-extinguishing properties, while retaining the physical and mechanical properties, and having Shore A hardness of lower than 85 (p. 11, lines 11-16).

32. Sullivan et al discloses a multi-layered article, such as a golf ball, wherein each of the layers appears to have different specific gravity and different Shore hardness (p. 11, claim 1). Specifically, the outer core layer comprising EPDM rubber (see [0042] and [0043]) is heavily filled with density increasing material to provide a specific gravity of greater than 1.75 g/cc or greater than 2 g/cc ([0013]). The filler comprises calcium carbonate having specific gravity of 2.71 g/cc or barium sulfate having specific gravity of 4.6 g/cc (see table in [0062]). The outer core layer appears to have Shore D hardness of at least 30 ([0051]).

Art Unit: 1796

33. Therefore, **Sullivan et al** teaches that by addition of density increasing fillers such as calcium carbonate or barium sulfate to specific compositions of different layers, the desired specific gravity and desired hardness of each layer may be achieved.

34. Since

1) **Carfagnini** discloses a plasto-elastomeric composition and a process for producing a plastomer-elastomer compositions comprising mastification of the EPDM elastomer and fusion of the polyolefin plastomer; thorough dispersion of the components; cross-linking of the elastomeric component with a blend of non-halogenated phenolic resin and salicylic acid; followed by even dispersion of any other additives (p. 3, lines 54-58), but fails to specify the additives being magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate, which comprise 90% or less of the composition, and addition of the filler to the composition until the final specific gravity is 2 kg/dm³;

2) **Credali et al** discloses a composition comprising:

- a) 8-25% by weight of propylene polymer or copolymer;
- b) 75-92% by weight of elastomeric fraction comprising copolymer of ethylene, propylene and conjugated or non-conjugated diene;
- c) 40-80% by weight of inorganic filler comprising magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate, wherein the composition comprises a Shore A hardness of lower than 85 (p. 11, lines line 17-18), good flame-retardancy and good elastic properties (see p.11, lines 21-26),

Art Unit: 1796

3) **Sullivan et al** teaches that by addition of density increasing fillers such as calcium carbonate or barium sulfate to specific compositions, the desired specific gravity and desired hardness of each composition may be achieved;

therefore,

it would have been obvious to a one of ordinary skill in the art at the time of the invention was made to add magnesium hydroxide, aluminum hydroxide, calcium carbonate, or barium sulfate fillers to the composition of **Carfagnini**, so that the composition of **Carfagnini**, containing 40-80% of a filler, would comprise both good flame-retardancy and elasticity properties, similar to **Credali et al**, wherein by addition of specific filler to in a specific amount, the desired specific gravity and Shore hardness of the composition may be obtained. Furthermore, since the specific gravity and Shore hardness of the composition depends on the amount of added specific filler having a specific gravity, such limitation as the amount of added specific filler having specific gravity, becomes a result effective variable, therefore, it would have been obvious to one skilled in the art at the time of the invention was made, to make variations in the amount of specific filler having specific gravity added to the rubber composition to obtain the desired specific gravity and Shore hardness of the final composition. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (MPEP 2144.05 II).

35. Claims 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957) and **Sullivan et al** (US

Art Unit: 1796

2004/0209707), in further view of "Hawley's Condensed Chemical Dictionary", 14th Edition, 2002, by John Wiley & Sons Inc.

36. The discussion with respect to **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957), **Sullivan et al** (US 2004/0209707) set forth in paragraphs above is incorporated here by reference.

37. **Carfagnini** in view of **Credali** and **Sullivan et al** fail to specify the use of aluminum hydroxide having specific gravity 2.42 g/cc, barium sulfate having specific gravity 4.48 g/cc.

38. Calcium carbonate with specific gravity 2.71 g/cc, aluminum hydroxide with specific gravity 2.42 g/cc, barium sulfate with specific gravity 4.48 g/cc are commercially available (see "Hawley's Condensed Chemical Dictionary", 14th Edition, 2002, by John Wiley & Sons Inc.).

39. Therefore, it would have been obvious to a one of ordinary skill in the art at the time of the invention was made to use commercially available aluminum hydroxide with specific gravity 2.42 g/cc, barium sulfate with specific gravity 4.48 g/cc in the composition and process of **Carfagnini** in view of **Credali** and **Sullivan et al** as it would have been obvious to substitute one equivalent for another used for the same purposes. Case law holds that the selection of a known material based on its suitability

Art Unit: 1796

for its intended use supports prima facie obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.*, 325 US 327, 65 USPQ 297 (1045). Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

Response to Arguments

40. Applicant's arguments filed on January 7, 2010 have been fully considered.

41. Regarding the rejection of claims 2-4, 6-19 under 35 U.S.C. 103(a) as being unpatentable over **Carfagnini** (EP 230,212) in view of **Credali** (WO 2004/026957), and **Yamanaka** (US 2003/0013820), applicant argues that the cited references do not teach the composition where filler is added to the composition to achieve a total specific gravity of up to 2 kg/dm³ and having hardness ranging from ShA 40 to ShD 50.

42. Examiner disagrees.

Carfagnini teaches a plasto-elastomeric composition and a process for producing a plastomer-elastomer compositions comprising mastification of the EPDM elastomer and fusion of the polyolefin plastomer; thorough dispersion of the components; cross-linking of the elastomeric component with a blend of non-halogenated phenolic resin and salicylic acid; followed by even dispersion of any other additives (p. 3, lines 54-58), but fails to specify the additives being magnesium hydroxide, aluminum hydroxide, calcium

Art Unit: 1796

carbonate, barium sulfate, which comprise 90% or less of the composition, and addition of the filler to the composition until the final specific gravity is 2 kg/dm³. However, **Credali et al** discloses a composition comprising 8-25% by weight of propylene polymer or copolymer; 75-92% by weight of elastomeric fraction comprising copolymer of ethylene, propylene and conjugated or non-conjugated diene; and further 40-80% by weight of inorganic filler comprising magnesium hydroxide, aluminum hydroxide, calcium carbonate, barium sulfate, wherein the composition comprises a Shore A hardness of lower than 85 (p. 11, lines line 17-18), good flame-retardancy and good elastic properties (see p.11, lines 21-26). Furthermore, **Yamanaka** discloses a composite material comprising: ethylene-propylene-diene (EPDM) rubber, polyolefin; and an inorganic filler, wherein the filler is added so that composite comprises specific gravity of 1.6-1.8 g/cc. Therefore, both **Credali et al** and **Yamanaka** teach that inorganic filler may be added to the plasto-elastomeric composition to achieve Shore A hardness of lower than 85, specific gravity of 1.6-1.8 g/cc and good flame-retardancy. Since the specific flame-retardancy, hardness and elasticity of the composition depend on the amount of specific filler having specific gravity added to the composition, such limitation as the specific amount of added filler having specific gravity becomes a result effective variable, therefore, it would have been obvious to a one skilled in the art at the time of the invention was made, to make variations in the amount of the added filler and, thus in the level of the specific gravity of the final composition, to reach the desired combination of flame-retardancy, hardness and elasticity of the final composition. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (MPEP 2144.05 II).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina Krylova whose telephone number is (571)270-7349. The examiner can normally be reached on Monday-Friday 7:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Irina Krylova/
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796

Application/Control Number: 10/574,638
Art Unit: 1796

Page 20